171 use honey dew which forms on Phragmites communis, also on rush, Juncus; Yavapai and Papago obtain it principally from willow, but also from cane.

262 Tübatulabal also occasionally sucked sections 263 of freshly cut cane for its sweetness (SM).

Saline crystals which form in dry hot weather 258 on salt grass made into "salt" (tu·t). Salt grass 137 grows in saline areas, on valley floors, at base of foothills; its utilization among Tübatulabal 824 depended on weather, as "after a rain it takes a month for salt grass to get salt again" (SM). Grass cut, spread out on mats to dry in sun; after grass thoroughly dry same process followed as described above for obtaining honey dew, save that collected crystals made up into balls or flat cakes instead of being spread on tule tray. Chunks [272 equal to 2-3 full tablespoons broken off dry ball, 278 dissolved in cupful of water and drunk either for 757] refreshment or as laxative and to rinse out stomach. Salt-grass crystals also obtained by children who took willow switches and "swept" salt grass with them early on summer mornings; when sufficient quantity of crystals had adhered to stick, child took it to shady spot and licked off crystals. Fresh salt grass soaked in water and this [262 water sprinkled over raw chopped clover, or sprigs 263] of salt grass and clover rolled between hands and eaten. Substance manufactured from salt grass never used to season meat or mushes.

314 Chewing gum made from milky juice of Asclepias 824 erosa Torr. (pololi·wa·bI·l); stalk of plant cut near top before it blossomed and juice collected in 4-in. tubular sections of jointed stalk of Eriogonum elongatum gramineum n. var. Stokes (ined.), (šiko·ništ). Joint of stalk served as natural stopper for bottom end of tubular section; juice run into stalk through open upper end; filled sections of stalk set in hot ashes to roast until plant juice inside has congealed; stalks then cut open, gum removed and chewed. This gum "better than store gum" (ES).

262 Meals.- Meals eaten twice daily around sunrise 264 and before sundown. At morning meal (wi·lil) and evening meal (tu·kil) men, children ate first, then women. Meat eaten at both meals, "if people ● [445] had it." Men, women used spoons (ta·mil) made from antelope horn (ša·wun) for eating acorn mush (SM), or wooden spoons (FP); PN said spoons of elk, antelope horn not made. Acorn mush eaten with fingers (MM). No formula spoken before eating. Children pieced during day; "mothers gave [753 them a cup of chia gruel" (SM). Food rarely eaten after dark as ghosts "come around at night; they [774 might throw something in the food that would make a person sick" (SM, FP). Because strangers poten- [609] tial enemies who might put poison in food, person avoided eating with them. Women when out for day gathering seeds, tending tobacco, etc., took lunch with them which they ate about 10 or 11 a.m.; men hunting deer "didn't take any food; they came home in the evening" (FP).

317 Salt.- Rock salt (uṃa·l) obtained in winter
135 chiefly, from dry salt lake to E in Koso terri-
431 tory between Randsburg and Cantil on n. edge of
Mohave desert. Individual men went for it, afoot;
●[415] "a man started out at 2-3 o'clock in the morning,
taking water with him in a basketry water bottle.
He returned home the same evening or the next
487 day, bringing back 1/2 sackful of salt, enough
for about one month, on each trip" (SM). Route
followed led S from Weldon to Kelso valley in
Kawaiisu territory, thence SE to Jawbone canyon
and Mohave desert and NE to Dry Salt lake. An-
other route from Onyx led over Walker pass, S
across Indian Wells valley to Dove springs and
through Red Rock canyon to Cantil. Either route
[482] about 40 mi. long. Salt transported in large
lumps, in deerskin sacks; when used pounded in
mortars or pulverized on slab; used sparingly
on cooked meat and for drying meat and fish,
but not to season acorn, piñon mush, or any other
262 plant foods. Salt per se not specifically tabooed
784 at certain times (SM, FP), as among Diegueño,
Mohave (Kroeber, Handbook, 721, 747, 748, 750);
food taboos related specifically to meat (includ-
ing fish), grease, and cold water. However, as
it was only with meat and fish that salt was
used, practical result was that observers of
meat taboo also abstained from salt during taboo
periods.

251 Storage and preservation of food.- Acorns
343 stored in granary (la·lwašti·l) of Miwok type
(Kroeber, Handbook, 446, pl. 38) but lacking cen-
ter post and with framework consisting of 4 large
posts, 6 ft. high, set upright in ground 3 ft.
apart to form square. Bottom of granary cleared
ground by 2-4 in. Granary lined with sagebrush;
after acorns dumped in, layer of brush piled over
them and bark slabs put over brush to keep out
rain. Granaries built at acorn grounds used from
yr. to yr.; during winter man and wife made
trips to their granary and drew upon contents as
needed. Smaller granaries of same type sometimes
set up near dwelling house to use for acorns
gathered nearer home.

Piñon cache (pača·i·ništ) consisted of cir-
cular pit, about 5 ft. in diameter, 2 1/2 ft.
deep, dug with sticks in floors of natural rock
shelters near piñon grounds. Pits lined with flat
rocks (SM) or brush (FP); loose piñons dumped
into cavity, cache covered with large flat rocks
or grass and small stones. During winter men made
trips to caches, packing home piñons in skin
sacks.

Families generally had storage house near
family dwelling; this storage house as large and
made in same fashion as living house, save that
[415] it lacked fire pit and smoke hole and walls were
thatch and mud covered. In this house were kept
large wide-mouthed coiled baskets, some "as big
as washtubs" and trays used as receptacles for
stores of dried meat, fish, small seeds, piñons,
acorns, as well as articles of domestic or occa-

482 Conical pack basket.- Acorns, piñons, camp
●415 equipment, firewood transported by women in conical pack baskets (wo·niht); baskets carried well up over shoulders by means of pack strap (pongon), center of which passed across forehead or across chest (MM); 2 ends of strap were fastened to 2 buckskin loops set into basket. Basketry cap protected forehead. Conical carrying basket said never to have been used inside carrying net (SM, PN); RP, however, remembered having seen her grandmother carrying pack basket "in some sort of net."

482 Firewood, if not carried by women in pack
372 basket, was tied into load with native rope and load, attached to rope which passed over chest, carried by women on back (FP, PN). Men sometimes packed home large pieces of firewood, carrying such over shoulder (SM).

483 Carrying net.- Men used carrying net (tambahal)
415 exclusively (SM), to pack home deer, other large game, also when trapping eagles; net, with burden inside, slung over one shoulder and passed downward across chest.

415 Basketry water bottle.- Water carried by men,
482 women, in pitched basketry water bottles (iwat); such bottles also used for storing water at dwelling place. They were carried on back, by means of pack strap, ends of which were attached to 2 loops set into side of bottle, similar to loops on pack basket (supra). Small girls packed their own water in small pitched bottles, during trips over dry areas.

352 Baby carriers.- Two types of baby carriers
854 used; babies, from time of birth up to about 5 months old, kept on small cradle (wodawlil), "just the size of a little baby." This cradle consisted of an oval frame, 21 in. or so long, with parallel rows of small willow sticks laid transversely across frame. Single oak branch, 1/2 in. in diameter, peeled, and 2 ends bound together with sinew or twine to form frame. Tules wrapped around edge of frame, and small tule mat (paht) put over transverse rods; cradle lacked hood. Infant lay on it, wrapped in soft tanned wildcatskin; when infant nursed, mother held cradle in crook of arm; carried child about in same manner. No specimen of such cradle obtained, but FP said she had made one such for youngest grandchild few years ago.

Between ages of 5 months and year, child
[71] "crawled around indoors," but if mother had work to do outside she tied baby in Y-shaped cradle (umbo·al), similar to Yokuts, Kitanemuk cradle (Kroeber, Handbook, 535, fig. 48d), save that length of stick below crotch shorter in Tübatulabal specimen. Forked branch of Fremontia californica Torrey (u'upul) peeled, used for frame (naši·la·'waga·na'). One cradle (1-28570) measures 31 1/2 in. overall, 28 in. from crotch to top, has 10 crossbars lashed to frame with

411
324

Fig. 7. Flaked artifacts from Andress collection. a, white quartz strike-a-light, 1 5/8 in. long, 1¼ in. wide; b, c, obsidian arrowheads, 1½ in. long, 5/8-in. wide at shoulders; d, red flint arrowhead, 1 in. long, 1¼ in. wide; e, arrowhead from Nichols peak (see text); f, g, h, red flint artifacts, lengths respectively, 3¼ in., 2 3/4 in., 1 7/8 in., widths at top, respectively, 1¼ in., 1½ in., 1 in., either spearheads (FP), unfinished arrowheads (SM), or knife blades (?).

411 wooden foreshaft used; for waterfowl, cane arrows had sinew wrapped thickly around joint where foreshaft entered cane mainshaft, so as to produce bulge which made arrow skip over water in flight, [171] similar to Owens Valley Paiute arrows for ducks (Steward, 1933, 261, fig. 3d). Specimen 1-19809 consists in part of 2 unfeathered arrows with cane mainshafts 46 in. long, foreshafts 4 1/2 in. and 2 in. long; such arrows might have been used by boys or else are simply, as collector has noted, very poor specimens.

● 415 Quiver.- Sacklike quiver (ma·šat, also term for sack), made from whole untanned antelope, coyote, or wildcatskin with hair left on; men going hunting carried quiver in carrying net,

[p. 28(b)]

415 which was used later to pack back deer; if going to war, man carried quiver slung over left shoulder and tied under right arm with twine.

411 Arrow release.- Man shot either standing or kneeling; if kneeling, weight rested on left knee, which touched ground; squatting position (Kroeber, Handbook, 822, pl. 78) never assumed for shooting (SM). When standing man held bow perpendicularly; if kneeling, horizontally; primary release used in both positions (SM).

Spear.- Although SM denied spears used in warfare, MM, FP both said they were, the spear (ku·yi·l, FP) being a 4-ft. shaft of any sort of hard wood, tipped on end with an obsidian head some 10-12 in. long (MM). This head was "sharp on both edges" (FP); what may have served as spear heads are shown in outline (fig. 7f-h), although SM when shown the red flint originals, from the collection of Miss Shirley Andress, said they were unfinished arrowheads.

TOOLS

412 Knife.- Knives (pigat) used for skinning large
324 game, etc., flaked from obsidian or red quartz;
18 in. (?) long, unhafted, similar in shape to
[171] Owens Valley Paiute knife (Steward, 1933, 261, fig. 3i). General utility knife (same term), used for cutting buckskin, shaping bow, etc., consisted of flaked obsidian blade about 5 in.
[171 long, set in wooden handle; similar to Owens
317] Valley Paiute knife (Steward, 1933, 261, fig. 3j), except that Tübatulabal set blade in handle with asphalt, did not lash it with sinew. Hafted knives aboriginal (SM).

Adz, wedge, maul.- Informants could give no information on adz, wedge, or maul; presumably these lacking. SM did not know whether trees ever felled, and if so, how; stone axe apparently lacking. Holes in wooden mortars made by burning out wood; stone mortars chipped out; "the gray stone was soft" (SM).

412 Scraper.- Entire lower leg bone of deer used as scraper (iši·bišt) to dehair skins.

Awl.- In sewing moccasins, sacks, quivers, etc., and in flaking arrowheads, knife blades,
[171] an awl (niŋa'adol) similar to Miwok awl (Kroeber, Handbook, 806, fig. 67h) used; this awl about
[317] 4 in. long, made from leg bone of deer topped with lump of asphalt; when used, strip of buck-
[462] skin (ma·pu·ništ) wound around palm of right hand; this awl essentially man's tool.
Women used smaller awl (wĭŋabĭt), shaped like man's awl, but made from spine of barrel cactus (kĭče'apĭl) surmounted with small lump of asphalt, when making coiled baskets.

177
372 steel, but we used the 2 pieces of stone and no
462 steel" (SM). Quartz for these strike-a-lights
[439] obtained from Koso Indians at Koso (FP).

Firewood.- Small trunks of willow (ha·l),
313 Salix laevigata Bebb., branches of Fresno tree
(a·wilibĭ·l), Fraxinus oregana Nutt., stream
alder (pawiču·l), Alnus rhombifolia Nutt., and
dry oak used chiefly for firewood (kutuga't);
cottonwood (u·'ut, generic name for tree), "too
light" (SM). Firewood broken into 3 to 3 1/2-ft.
lengths for carrying in pack basket; women
[462 packed on back loads of slightly longer lengths,
482] but "not too heavy" (FP); men brought in larger
pieces on shoulder.

GLUE, PITCH, AND ASPHALT

381 Glue.- Deer horns boiled in small amount of
water, in pot, to obtain glue (a·wadin pa·hn,
horn water); used to apply sinew backing to bows.

314 Pitch.- Several varieties pitch (ša·num) used
824 for different purposes; pitch from Digger pine
applied to soles of moccasins to make them wear
● 415 longer (FP); pitch from bull pine smeared over
torches used in quail hunting. Basketry water
bottles made watertight by putting handful of
red earth of same variety used for face paint,
plus lump of piñon-pine pitch inside finished
bottle, together with quantity of heated pebbles
about size of person's thumb. Hot pebbles shaken
vigorously inside basket for 5-10 minutes, thus
causing pitch to melt, combine with red earth,
and coat inside of container. Hot melted pitch
also smeared over outside of bottle with small
stick; when it had cooled slightly red earth,
mixed with little water, was smeared on top and
mixed in with pitch coating. The red earth, used
in combination with the pitch, made water "taste
sweet"; if pitch alone used, water had "bitter"
taste.

Pitch or gum (ya·bul), obtained from grease-
wood, used to fill walnut-shell dice (FP).

317 Asphalt.- Lumps of asphalt brought into area
[439 by "the Indians from around Ventura, when the
574] latter came up for piñons. The Tübatulabal also
visited at Ventura, and one of the things they
brought back from the ocean was asphalt" (SM).
This commodity used in variety of ways, some of
which were: to attach prong to shaft of harpoon,
to attach bone point to fish hook, to cement
foreshaft in cane mainshaft of arrow, and socket
arrowheads into foreshaft, to secure knife blade
in handle, to attach basket hopper to mortar.
Asphalt also used to smear over fishlines made
of native twine, and lumps of it served as knob
handles for bone, cactus spine awls. Asphalt was
softened by melting; often applied with small
stick. Gifford and Schenck (p. 53) also note
presence of asphalt beds on surface in hills SW

285 small willow or cottonwood roots used. Weft for
824 various types twined ware made from whole or split peeled willow or redbud shoots, roots of tree yucca, outer bark of willow. Tules used considerably for baskets, mats; there are few tules in either Kern or South Fork valleys now, but formerly they were plentiful at certain localities, especially in South Fork valley. Warp and weft of tule baskets consisted of whole tules, which were gathered, trimmed, dried, then soaked before being used, as was all fibrous material used for basketry.

292 Coiled baskets included:

171 (a) Cap, which was flat topped, resembled
285 Owens Valley Paiute (Eastern Mono) type (Kroeber, Handbook, 560, pl. 55d). Specimen 1-20960 (illustrated in O. T. Mason, 284, pl. 40), is 8 in. high, 4 1/2 in. wide at rim; design is in black and red; specimen 1-20961 (Mason, ibid.) is 7 3/4 in. high, 4 in. wide, has 14 stitches, 9 coils to inch. Caps started with yucca root; foundation consists of 2 stalks deer grass split in half; sewn with yucca. Worn by woman whenever she used pack strap, also when gathering piñons to protect hair from pitch.

415 (b) Sifter (wa·t) or small tray; slightly
285 concave on inside. Specimens 1-19821-22 are 16 1/2 in. in diameter; 1-19823-25, 15-15 3/4 in. in diameter; 1-19814, 10 1/2 in. in diameter. Coil is clockwise, looking down on inside; one specimen has foundation consisting of 6 halved stalks of deer grass and one finely split willow shoot; is sewn with yucca root. Start leaves round hole 1/4 in. in diameter in center of tray; specimen 1-19824 has piece of cloth plugged into hole at start. Of all basketry ware extant in 1932, sifters seen most frequently; uses have been referred to (ante).

(c) Parching tray (ša·giš); was "made like a sifter, only larger"; used for parching small seeds, such as chia, with live embers. [525] This tray may have been used also for women's dice gambling game; FP said game played on sifter, but PN said on "a pretty big basket, with rather high sides"; no specimen extant.

(d) Cooking basket (hom'mol); these were large flat-bottomed baskets with flaring sides; sizes varied, some being 22 in. tall, 11 in. wide at top, 5 in. in diameter at bottom; others [252] smaller. Used for stone boiling, to drain manzanita cider into, as storage baskets, etc. Specimen 1-20945, 20948-50 (illustrated in O. T. Mason, 478, pl. 192) are probably cooking baskets; 1-20947, large flaring basketry bowl, 17 1/4 in. high, 8 in. in diameter at top, 4 1/4 in. at base, is labeled "to be burnt on grave," which suggests that some of baskets of this type were made for display purposes only; unfortunately I did not inquire into this matter.

(e) Basketry ladle (hom'mobit); was small shallow basket, shaped like cooking basket, only difference being one of size. Specimen 1-19813, identified by ES from sketch as ladle, is 2 1/2

415 285 in. high, 6 1/2 in. in diameter at top, 4 in. at base. Used by individuals for drinking soup; also used for shaping biscuits of acorn mush (p. 18).

(f) Meal basket (ponol); was about 16 in. high, flat-bottomed, with sides which curved inward toward top; latter about 6 in. in diameter. Used as container for freshly ground chia seeds, etc. (Fig. 8b.)

(g) Mortar hopper (hoyanut, PN); was made from old cooking basket with bottom cut out; height, diameter varied, depending on size of mortar; some hoppers 6-8 in. deep, 16 in. in diameter across top. Attached permanently to mortar with asphalt; PN had seen hopper attached to small portable stone mortar used for mixing tobacco and lime; FP had seen Bob Rabbit, widowed Kawaiisu rain doctor, using hopper on mortar hole in log at piñon camp, "where there was no stone." Hopper helped prevent small seeds from flying out of mortar during pounding.

[317]

415 323

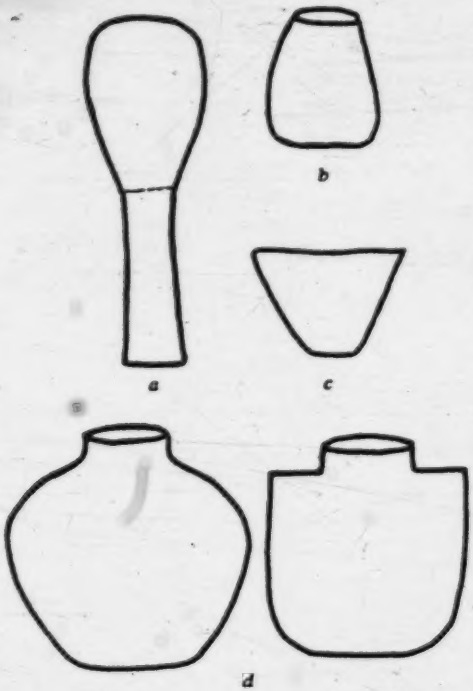

Fig. 8. Basketry and pottery shapes. a, tule tray for drying sweets; upper part, body of tray, lower part, handle end which was folded over at broken line. b, coiled basket used for storing small seeds. c, pottery bowl in Andress collection, height 4 in., width at mouth 4½ in., thickness ¼ in.; surface find in mts., Tübatulabal area. d, bottleneck money jars (1-20952, 20953).

415 285 (h) Money jar (ukulušt) or "Tulare bottleneck" (fig. 8d); most elaborate basket type; specimen 1-20951, 20953 (O. T. Mason, 479, pls. 193, 194), made by FP's mother, ornamented around

[P. 31(b)]

415 shoulders with red yarn and mt. quail crests.
285 Specimen 1-20955 (O. T. Mason, pl. 41) lacks
[237] quail-crest decoration. These jars varied in size; base and mouth equal in diameter; specimen 1-20952 is 6 1/2 in. high, 5 1/2 in. wide at shoulder, 3 1/2 in. wide at base, mouth; specimen 1-20951 is 9 1/4 in. high, 5 1/2 in.wide at
[171] shoulder. Shapes of Tübatulabal bottlenecks in Museum collection (fig. 8d) differ noticeably from those of Yokuts specimens (Kroeber, Handbook, pl. 50a); most of Tübatulabal specimens have straight or rounded sides instead of flaring ones and rounded instead of horizontal shoulders; however, informants immediately identified 2 Yokuts baskets in Handbook as money jars. Split stalks of deer grass used as foundation; specimen 1-20952 has 22 stitches, 9 coils to inch. Used solely as containers for strings of clamshell-disk currency (SM).

(i) Piñon jar (tÝbat ukulušt); had as foundation 2 strands of piñons strung on native twine; sewed with twine. These jars similar in shape to money jar; made by women while at piñon
[482] camps (SM, ES). Strung piñons, a delicacy, put inside these jars for transportation back to hamlets.

Plain twined baskets included:

(a) Lug basket (ča·mušt), which was small conical openwork twined basket, 16-18 in. high, 10-12 in. wide at top; used for collecting piñon cones from under trees; cones later dumped in large conical pack baskets.

(b) Ovate winnowing tray (pu·'išt); specimen 1-19816, made by PN, is 22 in. long, 20 in. wide at widest point; specimen 1-19817 is 14 in. long, 12 in. wide, and is mended with yucca root in 2-rod diagonal twining at bottom end on up-
[252] curve. Such tray put to variety of uses: to winnow piñon meats from shells, to roast shelled piñons on, to pile manzanita berries on during cider making, etc.

(c) Seed beater (wa·lat); had scoop in plain openwork twining; hand end of scoop of 2-ply, handle of 3-ply, diagonal twining. Warp and handle material of peeled willow shoots; cactus roots used for weft in diagonally twined sections. Seed beaters comparatively long when new, although they might be used until handle became mere stub; specimen 1-19818 has scoop 11 in. long, 8 in. wide at center; handle 8 in. long, 4 in. broad at scoop end; specimen 1-19819 has scoop 12 in. long, 9 in. wide, with handle 6 in. long; specimen 1-19820 has smaller scoop, 8 in.
[222] long, 7 in. broad, with handle 7 in. long, 4 in. wide at base. Beaters used to knock small seeds, berries into conical seed basket.

[171] Trays for suspension, such as Yokuts made (Kroeber, Handbook, 530, pl. 50b) not manufactured by Tübatulabal (SM).

Diagonal twined baskets included:

(a) Seed basket (wili·'iništ); conical, 2-ply diagonal closely twined basket; specimen seen in field measured 16 1/2 in. in height,

415 285 16 1/2 in. in diameter; 2 willow rods (pi·mun) sewn around top for reinforcement; 2 cloth lugs attached to rim on opposite sides. Seeds, berries collected in this basket as they were knocked off bush with seed beater.

415 285 482 (b) Burden basket (wa·niht); conical, 2-ply diagonal closely twined basket, about 29 in. deep, 26 in. in diameter at top. Warp and weft of peeled willow shoots; basket banded with oak rod attached to rim with split willow shoots. Two pieces of willow, 3 in. long, sewn on inside of basket horizontally 9 in. below rim and 6 in. apart; lengths of twine attached to these pieces of willow to make 2 loops (pu·niwa·n) 6 in. long, which came through basket and hung down on outside; pack strap attached to these 2 loops. On some baskets 3 willow bands encircled basket on outside as reinforcement, being put on at top, 1/3 and 2/3 of way down. Specimen 1-19815, small burden basket made by PN, is 20 in. deep, 23 in. in diameter at top; has 2 willow rods around top, with top rod left bare except at intervals where it is stitched to rod underneath it. Rod sewn on inside basket for attaching twine loops. Uses have been mentioned (ante).

[171] (c) Water bottle (iwat); resembled that of Kawaiisu (Kroeber, Handbook, 560, pl. 55e), but had flat base (all informants). Made in 2-ply diagonal twining with warp of whole peeled willow shoots, weft of split willow shoots; 2 loops attached to side as on burden basket, with long string which passed over carrier's forehead, fastened to loops. Bottle pitched inside and out (see section on Glue, Pitch, Asphalt); stoppered with roll of grass (pa·nišwa·n). Small girls packed little water bottles "like the one in the picture" (Handbook, ibid.); adults larger ones, some 16 in. tall, on trips into dry country. Large bottles, often 17 in. in diameter, used to store water in at dry piñon camps and as water containers at hamlets.

[171] Tule baskets and traps were all of 2-ply diagonal twining; soft tule baskets such as Yokuts made (Kroeber, Handbook, 530, pl. 50c) not manufactured among Tübatulabal.

Tule objects included:

227 285 (a) Conical trap; some 4 ft. deep, 3 1/2 ft. wide at top, made similar to burden basket; this trap set below fall in river, secured between 2 sticks as among Owens Valley Paiute [171] (Steward, 1933, 251); set in evening and left overnight.

[171] (b) Tubular trap (wa·mat); similar in shape to Pomo trap (Kroeber, Handbook, 172, pl. 33a), but made from tules; this staked down in smooth water; "when a big fish got inside, it couldn't turn around to get out" (SM).

[171] (c) Conical scoop (či·dišt); similar in shape to Pomo trap (Kroeber, Handbook, 172, pl. 33b), but lacking inner cone and made from tules; used to scoop up stupefied fish from pools.

285 415 (d) Tule tray (ši'i·bɨ·l u·ẓi·l); shaped something like seed beater but with broader

285 415 handle (fig. 8a), used for drying sweet substance obtained from cane (p. 19).

[492] (e) Saddles were formerly made from tules. In contrast to twined ware, all of which was plain, all coiled ware except piñon jars had designs in red, or red and black basketry material; money jars further decorated with row of black mt. quail crests and, in post-white times, red yarn, inserted around shoulders. Pieces of abalone shell, shell or glass beads not used for decoration.

531 Either informants had forgotten them, or else few designs had names; when shown some 26 designs taken from Tübatulabal basketry collections, SM recognized 3 (fig. 9) which had descriptive names, king snake design (pokpo·go´no·lo·wum),

a b c

Fig. 9. Basket design elements. a, rattlesnake; b, little boy; c, kingsnake.

little boy design (anayhi·lo·wum), rattlesnake design (cĭmĭndiŋlo·wum), "a hard pattern" (ES). [532] Human figure design aboriginal (SM); pictographs of human figures in territory tend to confirm this, although Kroeber holds human figures on baskets result of American influence (Kroeber, Handbook, 541). ES recognized several Yokuts designs (Kroeber, Handbook, 533, fig. 47, nos. 1, 8, 15, 16) which she had seen on Tübatulabal baskets, but did not know names for them. [171]

285 Mats.- Mats (paht) were made from whole dried trimmed tules, which were soaked before being woven; mats 3-5 ft. wide, of varying lengths, made in plain twined weave with each series of tule weft elements spaced about 3 in. apart. Top, bottom edges finished with tule braid (ta·ža·bil). Specimen 1-21064, large tule mat used for house covering, has braid edge, as has fragment of mat 1-28574; specimen 1-28575, also fragment, has wrap edge. Large mats used to cover walls, floors of living houses, to sit on while working outside, to sleep on. Small tule mats bordered with tule braid, but lacking weft bandings, used on both types baby cradles; hood for baby's second cradle also of tules.

281 286 Rabbitskin blanket.- Fur blankets (wihnibĭ·l) made from jackrabbit skins; woven on 4-post frame (fig. 10), chiefly by men. About 12 (SM), 40 (FP) skins needed for blanket, which was "as big as woolen double blanket" (MM), 6 x 8 ft. (SM). Jacks skinned, making cut down belly; fresh skin cut from head to tail into strips 1 1/2 in. wide, about 15 in. long; these rolled

[p. 33(a)]

237 cular mat (či·gon) 3 in. wide, 1 1/2 in. thick, made of shredded native twine. Mat hung up on tree to dry; then stored away; when used, mat soaked in warm water and broken into several pieces; brains sank to bottom of container, shredded twine skimmed off surface of water with hands and thrown away. Brains then stirred into water and hide put in.

281 Sacks, purses, flat hides.- Sacks (ma·šat)
415 made from untanned deer, antelope, coyote, wildcat skins. Skin removed whole from carcass by cutting it around neck, lower legs, and anus and peeling it off; skin then turned hair side out, except those used for quivers, and anal and leg openings sewn up with native string, using bone awl. Skin then set up on end, loose dirt poured in through neck hole and skin left to dry for 2-3 days. When dry, dirt poured out and sack ready to use for carrying acorns, piñons, arrows, or for storing food, shell money, etc.

[177] Purse (mu·gulat) of weaselskin used in post-white times to carry silver dollars. Specimen 1-19804, weaselskin purse, labeled "used for Indian money," consists of entire skin which is dehaired, tanned, turned inside out, left open at mouth; SM probably correct in denying such purses
[436] used for shell money as latter was kept strung, coiled and any large amount would be too bulky for such small container.

[171] Bear hides tanned with hair left on; scraped, brains rubbed in as among Surprise Valley Paiute (Kelly, 119). Salt grass, cane laid on these tanned hides and flayed; occasionally, hides used as bed coverings.

RECEPTACLES

415 Besides using basketry and rawhide containers, Tübatulabal also made pottery and horn receptacles and apparently used imported steatite ware to slight extent.

323 Pottery.- Despite fact that "all the women
[462] used to make pots" (ES, FP), no informant could manufacture one for me, nor are any pots (ka·gul) now extant except one small mended specimen (fig. 8c), provenience of which is doubtful. However, FP had seen her grandmother make pots and SM remembered process sufficiently well to describe it briefly, as follows.

[317] Red clay (yahawa·l), obtainable from several deposits on floor of South Fork Valley, used for pots; ES pointed out one deposit of clay on knoll below village site no. 9 (fig. 11) in field belonging to Charles E. Andress, 1/4 mile E of road leading to village site; another deposit near village site no. 8. Clay dug, finely pounded in pit mortar and mixed with water into dough; no binding material added (FP, SM). Lump of clay flattened into disk with hand, set down on board or, formerly, basketry sifter; roll of clay about

T 323 [171] as thick as thumb laid around upturned edge of circular base and one roll after another used to build up side of pot as among Yokuts (Gayton, 1929, 242). Inside and outside of pot smoothed with fingers only (SM, FP); twig, chip, or acorn husk "might have been used a little" (FP), but small polishing stone such as Yokuts employed (ibid., 243) not used, nor were fingers dipped in syrupy substance while smoothing pot as among Owens Valley Paiute (Steward, 1933, 267). After pot shaped and smoothed it was sun-dried and then put on "a blazing fire made from any kind of wood"; pot allowed to get "red hot" (FP); firing caused clay to turn gray-black (SM, FP). T [171] After cooling, pot ready for use; coating acorn mush (Gayton, 1929, 245) not given it. SM had seen Tübatulabal pots shaped like middle and right-hand specimen in upper row of Yokuts pots pictured in Kroeber's Handbook, 530, pl. 51, but had never seen incised lines, such as those on Yokuts specimen, on any Tübatulabal pottery.

T ● 415 Pots were used for boiling meat, small game, whole piñons and buckeye nuts, tobacco stalks; T [276] FP said that occasionally acorn mush cooked in them although it was usually stone boiled. Pottery pipes not made (SM), cane cigarette pipes being used for smoking; FC had seen old Koso T [532] woman make clay pipes for her own use. Little girls sometimes made crude unbaked (SM) clay [857] dolls (a·na·wišti·l) from red clay; SM thought such to have been aboriginal; children also occasionally made animal figures of clay, baked them (Voegelin, 1935 b, 227). Although pottery generally made by women, MM as boy had tried to make pots, but his cracked when heated, whereas "old-time pots were so hard they wouldn't break if you threw them down or hit them with a rock" T (MM).

171 Contiguous distribution of this type of pottery limited to a few Calif. and Great Basin tribes (Gayton, 1929, 248, fig. 3; Steward, 1933, 269).

T 321 Horn objects.- Mt. sheep horn used as container for pounded tobacco and lime (see section on Tobacco); spoons (ta·mil) "shaped like a kitchen spoon" were made from antelope horn, using base of horn for bowl; "men and women used spoons for eating acorn mush" (SM); FN denied use of spoons.

T 324 Steatite objects.- Stone olla, 3 ft. high, "carved out of rock," was mentioned by FM, who said his father had found it among boulders on C T hill behind Jesus ranch in South Fork valley 40 756 yrs. ago. FM could give no further details.

177 [32] Small steatite bowls and tubular pipes with bird-bone mouthpieces (pl. 1a) used as part of rain doctor's outfit. Outfit pictured, now in possession of SM, inherited by him from his stepfather, Francisco Sasterray, Tejon Indian (probably Chumash); this makes these objects foreign importations among Tübatulabal; however SM said

249 N. bigelovii plant, height 35 in., leaves 4-6 in. long, 1 1/2-2 1/2 in. wide; 7, untended N. attenuata plant, 22 in. high, leaves 2-3 in. long, 1-2 in. broad.

249 Plate 4. a, Estefana Salazar gathering tobacco leaves. b, Frances Philips stripping midribs from tobacco leaves. c, Legora Tungate, Frances Philips, Estefana Salazar with tobacco wrapped in willow bundles ready to be cured.

249 412 415 276 Plate 5. a, cured tobacco drying in sun. b, brush-shaded pit mortar, showing pestles, fiber brush, and basketry tray used when pounding cured tobacco. c, balls and plugs of tobacco drying in sun.

343 301 342 133 773 Plate 6. a, sweat-house pit with remains of sweat house at village site no. 4 (fig. 11). Circumference of pit 37 ft., depth 6 ft. b, necklaces of cylindrical shell beads and colored-glass trade beads. c, ruins of transitional house type of tules and cottonwood at village site no. 7, Onyx rancheria, South Fork valley. d, pa·ša·pan, at base of mts. 3 mi. SW of Onyx and 1/2 mi. E of Kelso creek; showing boulder which Coyote, according to legend, broke in 3 pieces when Bluejay attempted to build bridge across Kelso creek to Nichols peak.

[p. 84 (6)]

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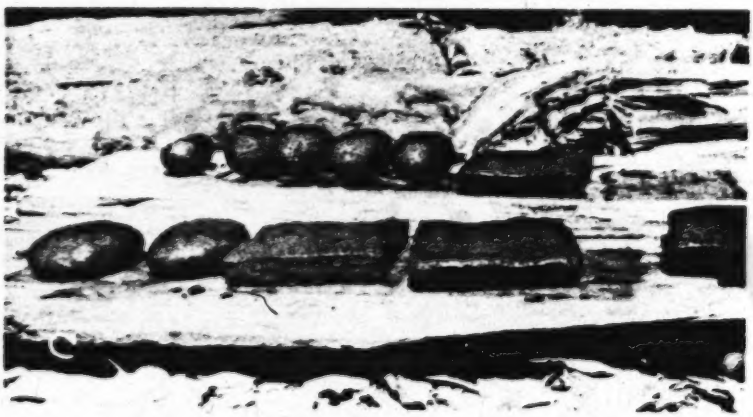

[p. 89]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts
Tubatulabal NS22

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Las'-yeh, now aged about 95 and last surviving full-blood of the Bankalachi Tribe from near Glennville, Eastern Kern County.

and helped record the names of many village sites and natural landmarks. On the site of present Kernville was the Bankalachi village of *Tulonoya*. Another Bankalachi village, *Pitnaniu*, was located where Isabella is now. Where Bodfish is now was the village of *Tumoyo*. *Haukaniu* was located where the old mining village of Keyesville was established. *Mawsow* (ow as in cow) was the Bankalachi name for a village about a mile and a half above the forks of Poso and Little Poso Creeks. It was